

EDITORIAL

Supporting biologists, inspiring biology

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You may have noticed that JEB has undergone something of a ‘makeover’ recently. After 85 years, we have introduced a new journal logo and abbreviated the journal name (becoming, simply, Journal of Experimental Biology).

These changes are most easily visible on our new-look journal website (<http://jeb.biologists.org>). As well as upgrading to a more-responsive publishing platform, allowing us to take advantage of new open-source technology, we have tried to improve the user experience by focusing on the elements of the website that users access most. The majority of our website traffic comes from searches on Google and PubMed, and most people enter the site via an individual article. Consequently, we have decluttered the article pages, improved navigation both within and between articles and increased accessibility to figures and tables, supplementary information, and author information and usage statistics.

Community feedback told us that we made a mistake in 2014 when we decided to move the Materials and methods section in JEB Research Articles to the end of the paper – we have taken this on board and have now reinstated the ‘methods’ between the Introduction and Results (see <http://jeb.biologists.org/content/methods-rationale>). We have also improved the website search functionality, provided better access to special issues, and introduced new features on the home page, including a regular Editors’ choice box, a featured movie, and links to the latest, most-read and highlighted articles in the journal.

If you are familiar with any of our sister journals (see below), you’ll spot a consistent look-and-feel across the journals and their websites. This is part of a bigger underlying change – the launch of a new ‘brand’ by JEB’s publisher, The Company of Biologists. More than just introducing new company and journal logos (Fig. 1), this ‘rebranding’ represents an initiative to help the Company become better known and understood and to highlight the value of its journals, meetings and charitable activities.

At the heart of the Company are its five specialist journals: Journal of Experimental Biology, Development, Journal of Cell Science, Disease Models & Mechanisms and Biology Open. Although these journals are well known in the communities they serve, far fewer people are aware of the additional areas of support that the Company brings to the biological community. The Company is a registered UK charity and reinvests the profits it makes from publishing to help support scientific discovery and help develop future biologists. It has provided substantial support to the research community by organising and facilitating scientific meetings, building and developing communities of biologists, assisting the activities of specialist societies and giving financial support to young researchers.

So, given this remit, how do the Company’s activities specifically help the comparative physiology community? Well, if it wasn’t for experimental biology, the Company might never have existed! It was created in 1925 by the eminent zoologist George Parker Bidder III to

save a young, dynamic but financially struggling journal: The British Journal of Experimental Biology. Bidder formed the Company in order to buy the journal, installed James Gray, a young experimental biologist, as the Editor in Chief (where he remained for the next 30 years) and renamed it The Journal of Experimental Biology. Further publications soon joined the fold, turning the Company into a specialist publisher (see www.biologists.com/about-us for more information about the Company and its history), but its roots in experimental biology continue to hold strong.

Ninety years on, JEB is the leading journal in comparative physiology, providing a trusted, respected and independent channel for the publication, dissemination and discussion of research. With an acceptance rate of approximately 35% of manuscripts submitted, the single most important criterion for publication in JEB is significant advancement of scientific knowledge, meaning we favour novel, mechanistic, hypothesis-driven papers of general importance and impact to the field. For good-quality comparative research with less perceived impact, our sister journal Biology Open (BiO), which was launched by the Company in 2011, provides an alternative venue for peer-reviewed original research across all aspects of the biological sciences. BiO is an author-pays, online-only, Open Access journal and focuses on rapid publication of sound research. Authors can submit direct to BiO or can easily transfer after submitting to JEB or one of the other Company journals. Box 1 lists a few recently published BiO papers that may be of interest.

Comparative physiology is a small but diverse field; the huge range of study animals and disciplines (e.g. biomechanics, ecological and evolutionary physiology, biochemistry, behaviour, neurobiology, sensory physiology) encompassed by JEB means that the journal serves many individual communities. One of the Company’s aims is to bring communities together to foster relationships across disciplines by providing a platform where researchers can share their thinking, engage with their peers and make new connections.

Thus, in addition to building online communities through our social media sites, the Company funds and hosts an annual JEB Symposium. The aim of this intimate discussion meeting – the presentations from which form the basis of an annual special issue



Fig. 1. The new logos of Journal of Experimental Biology and The Company of Biologists.

¹Editor in Chief, Journal of Experimental Biology. ²Publishing Editor, Journal of Experimental Biology. ³Publisher, The Company of Biologists.

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Box 1. Selected articles of interest published in Biology Open in 2015

Haddock, S. H. D. and Dunn, C. W. Fluorescent proteins function as a prey attractant: experimental evidence from the hydromedusa *Olindias formosus* and other marine organisms. doi:10.1242/bio.012138

Sim, E. L., Booth, D. T. and Limpus, C. J. Incubation temperature, morphology and performance in loggerhead (*Caretta caretta*) turtle hatchlings from Mon Repos, Queensland, Australia. doi:10.1242/bio.20148995

Fawcett, K., Jacobs, D. S., Surlykke, A. and Ratcliffe, J. M. Echolocation in the bat, *Rhinolophus capensis*: the influence of clutter, conspecifics and prey on call design and intensity. doi:10.1242/bio.201511908

Hitchcock, A. C., Chen, T., Connolly, E., Darakananda, K., Jeong, J., Quist, A., Robbins, A. and Ellerby, D. J. Trade-offs between performance and variability in the escape responses of bluegill sunfish (*Lepomis macrochirus*). doi:10.1242/bio.201511577

Puri, S. and Faulkes, Z. Can crayfish take the heat? *Procambarus clarkii* show nociceptive behaviour to high temperature stimuli, but not low temperature or chemical stimuli. doi:10.1242/bio.20149654

Williams, T. L. and McMillen, T. Strategies for swimming: explorations of the behaviour of a neuro-musculo-mechanical model of the lamprey. doi:10.1242/bio.20149621

Angel, L. P., Barker, S., Berlincourt, M., Tew, E., Warwick-Evans, V. and Arnould, J. P. Y. Eating locally: Australasian gannets increase their foraging effort in a restricted range. doi:10.1242/bio.013250

Rivera Chavarría, M., Castro, J. and Camacho, A. The relationship between acoustic habitat, hearing and tonal vocalizations in the Antillean manatee (*Trichechus manatus manatus*, Linnaeus, 1758). doi:10.1242/bio.013631

of the journal – is to review knowledge and stimulate further research in experimental biology, bringing together scientists from different areas and at different points in their careers to encourage cross-fertilisation of knowledge and techniques across specialisation boundaries. Since the first symposium on ‘Cellular oscillators’ in 1978, the annual JEB Symposia have covered a diverse array of topics within experimental biology, highlighting the relevance and power of the comparative approach to mainstream physiology (Box 2). These symposia form part of a series of meetings hosted by the Company, which also include intimate Workshops and larger Meetings in the fields of our sister journals.

The Company also funds various grants and travelling fellowships. If you are organising a scientific meeting, workshop or conference, you can apply to the Company for a Meeting Grant, which can be used to reduce or waive registration fees, meet the expenses of a plenary or keynote speaker, assist with travel for early career scientists or provide bursaries to facilitate attendance by scientists in developing nations. At the other end of the career ladder, Travelling Fellowships (of up to £2500) help graduate students and postdoctoral researchers to make collaborative trips to other research groups, providing the opportunity to learn new techniques, take part in fieldwork in another country, develop new collaborations and exchange ideas with leading scientists; Box 3 gives an example of how a JEB Travelling Fellowship made it possible for one postdoctoral researcher to contribute to an international project in the Galapagos Islands. The Company also supports and funds several scientific societies, including The Society for Experimental Biology, where its contribution not only helps finance the society’s own meetings and offers reduced subscription to our journals to its members but also offers travel grants to students and early career scientists wishing to attend a conference or gain research experience in another lab.

If you want to know more about the Company’s activities or to apply for a Meeting Grant or Travelling Fellowship, please visit www.biologists.com. We hope that the new Company brand will

Box 2. Topics covered in recent/future JEB Symposia

2016 Evolution of social behaviour

2015 Muscle: from molecules to motion

2014 Epigenetics in comparative physiology

2013 Stress: challenging homeostasis

2012 Neural parasitology: how parasites manipulate host behaviour

2011 Integrating biomechanics and ecology

2010 The biology of energy expenditure

Box 3. In the footsteps of Darwin – a Travelling Fellowship from JEB



The remote Galapagos Islands provide the ideal opportunity to investigate discrete populations of birds – and Darwin’s finches are one of the most important and most studied groups of all. However, the islands’ isolation makes research there both difficult and expensive.

A Travelling Fellowship from JEB gave Danielle Levesque (a Postdoctoral Researcher at the Institute of Biodiversity and Environmental Conservation, Universiti Malaysia Sarawak) the opportunity to join a team of international researchers investigating a specific feature of birds – the role of the bill in non-respiratory heat loss. Danielle joined investigators from the Smithsonian Migratory Bird Center in Washington DC, Brock University in Canada and the Universidad San Francisco de Quito in Ecuador who were studying the relationship between beak size and evaporative water loss in four species of Darwin’s finches.

Danielle’s contribution to the project involved measuring rest-phase metabolism in these species during the night. Measures of resting metabolism provided an important baseline for the day-time evaporative water-loss experiments that comprised the bulk of the collaborative study. The data will also prove useful for future comparative studies on the basal metabolism of these species, especially with regard to the effects of insularity and climatic unpredictability on physiological traits.

This collaborative project will result in at least one publication in a high impact journal. In addition, Danielle’s participation in this early stage of the project has led to connections and collaborations with other members of the team that will continue into the future.

help increase the awareness of its work and strengthen the links between the various Company activities, summed up by the strapline ‘supporting biologists, inspiring biology’.